

California Regional Water Quality Control Board
Santa Ana Region

November 21, 2003

ITEM: 6

SUBJECT: Amendment to Order No. 01-45, Waste Discharge Requirements for Colton/San Bernardino Regional Tertiary Treatment and Water Reclamation Authority's Regional Tertiary Treatment Rapid Infiltration and Extraction Facility, Order No. R8-2003-117

DISCUSSION:

On October 26, 2001, the Board adopted Order No. 01-45, renewing waste discharge requirements for Colton/San Bernardino Regional Tertiary Treatment and Water Reclamation Authority's (hereinafter CSBRTTWRA or discharger) Regional Tertiary Treatment Rapid Infiltration and Extraction (RIX) facility for the discharge of tertiary treated wastewater to the Santa Ana River. Order No. 01-45 specified a receiving water limitation for methylmercury based on the EPA guidance document EPA-823-R-01-001 - Water Quality Criterion for the Protection of Human Health: Methylmercury, January 2001. In this guidance document, the US EPA finds that a fish tissue residue water quality criterion for methylmercury is more appropriate than a water column based water quality criterion. The EPA further states that a fish tissue residue water quality criterion is more closely tied to the Clean Water Act goal of protecting the public health because it is based directly on the human exposure route for methylmercury. The receiving water limitation in Order No. 01-45 requires that the discharge not contain mercury concentrations that would result in the bioaccumulation of methylmercury in fish flesh to levels greater than 0.3 mg /kg.

Order No. 01-45 did not specify a mercury effluent limitation in view of the extremely low concentrations involved and the ultra clean sampling and analytical methods that would be necessary to even approach suitable detection levels. In lieu of this approach, in addition to effluent monitoring, the discharger was required to conduct monitoring of fish tissue in the Santa Ana River to identify any evidence of mercury bioaccumulation, as would be indicated by the detection of methylmercury. The Order includes a reopener provision that enables the Regional Board to revise the Order to include a mercury effluent limitation once a scientifically defensible method of translating methylmercury concentrations in fish tissue to mercury in the effluent is derived.

The discharger has demonstrated, through monitoring of the discharge and a fish (and other aquatic organisms) testing program conducted jointly with other dischargers to the Santa Ana River, that there is no reasonable potential for methylmercury to be present in the discharge at levels that would cause or contribute to a violation of water quality standards. Accordingly, it is appropriate to delete the methylmercury receiving water limitation. The discharger will continue to be required to conduct fish flesh testing for the presence of methylmercury.

Staff recommends that the reopener provision in Order No. 01-45 be revised to provide a specific numeric target for the methylmercury concentration in fish tissue that could trigger revision of the Order to specify an effluent limitation for mercury.

The following are the recommended changes to Order No. 01-45. (deleted text is struck out and added text is bold and highlighted)

1. Order No. 01-45, delete Finding 38 as follows:

~~38. In its January 8, 2001, guidance document, the US EPA finds that a fish tissue residue water quality criterion for methylmercury (Water Quality Criterion for the Protection of Human Health: Methylmercury EPA 823-R-01-001, January 2001) is more appropriate than a water column based water quality criterion. The EPA further states that a fish tissue residue water quality criterion is more closely tied to the Clean Water Act goal of protecting the public health because it is based directly on the human exposure route for methylmercury. Consequently, this Order specifies a receiving water limitation in fish tissue of 0.3 mg methylmercury/kg fish in lieu of limitations for total mercury in the effluent.~~

2. Order No. 01-45, delete Receiving Water Limitations C.4. as follows:

~~C.4. The discharge shall not contain constituent concentrations of mercury that will result in the bioaccumulation of methylmercury in fish flesh tissue greater than 0.3 mg methylmercury/kg fish.~~

3. Order No. 01-45, revise Permit Re-opening H.4. as follows:

H.4. This Order may be reopened to include an appropriate bioaccumulation based effluent limit for mercury, ~~when scientifically defensible guidance is developed to translate methylmercury in fish tissue to total mercury in effluent discharges.~~ **if test results (as required in M&RP No. 01-45) show that the concentration levels of methylmercury in the fish tissue are at or above 0.3 milligrams per kilogram.**

Order No. R8-2003-117 would amend Order No. 01-45 to incorporate these changes.

RECOMMENDATION:

Adopt Order No. R8-2003-117, as presented.

Comments were solicited from the following agencies:

U.S. Environmental Protection Agency, Permits Issuance Section (WTR-5) – Doug Eberhardt
U.S. Army District, Los Angeles, Corps of Engineers, Regulatory Branch
U.S. Fish and Wildlife Service - Carlsbad
State Water Resources Control Board, Office of the Chief Counsel – Jorge Leon
State Water Resources Control Board, Division of Water Quality- James Maughan
State Water Resources Control Board, Division of Clean Water Programs – Diana Robles
State Department of Health Services, San Bernardino
State Department of Health Services, Santa Ana
State Department of Health Services, Carpinteria - Jeff Stone
State Department of Water Resources - Glendale
State Department of Fish and Game - Long Beach
City of Highland - City Manager
City of Loma Linda - City Manager
City of San Bernardino - City Manager
City of Colton - City Manager
City of Grand Terrace - City Manager
City of Colton, Water and Wastewater Department - Thomas Clarke
City of Rialto, Public Works Director – John Gerardi
East Valley Water District -Robert Martin
Orange County Water District - Nira Yamachika
San Bernardino County Department of Public Works, Envr. Mngmt. Div. – Naresh Varma
San Bernardino County Environmental Health Department – Daniel Avera
Riverside Regional Water Quality Control Plant – John Claus
Santa Ana Watershed Project Authority – Joseph Grindstaff
Santa Ana River Dischargers Association
Orange County Coastkeeper – Garry Brown
Lawyers for Clean Water C/c San Francisco Baykeeper
Colton/San Bernardino Regional Tertiary Treatment and Water Reclamation Authority –
Bernard C. Kersey

California Regional Water Quality Control Board
Santa Ana Region

Order No. R8-2003-117

Amending Order No. 01-45, NPDES NO. CA8000304
Waste Discharge Requirements
for
Colton/San Bernardino
Regional Tertiary Treatment and Water Reclamation Authority
Regional Tertiary Treatment Rapid Infiltration and Extraction Facility
San Bernardino County

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter Regional Board), finds that:

1. On October 26, 2001, the Regional Board adopted Order No. 01-45, renewing waste discharge requirements for Colton/San Bernardino Regional Tertiary Treatment and Water Reclamation Authority's (hereinafter CSBRTTWAR or discharger) Regional Tertiary Treatment Rapid Infiltration and Extraction (RIX) facility for the discharge of tertiary treated wastewater to the Santa Ana River.
2. Order No. 01-45 includes the receiving water limitation that the discharge shall not contain mercury concentrations that would result in the bioaccumulation of methylmercury in fish flesh to levels greater than 0.3 mg/kg. This limitation is based on guidance provided by the U. S. Environmental Protection Agency (EPA-823-R-01-001 - Water Quality Criterion for the Protection of Human Health: Methylmercury, January 2001).
3. The discharger has demonstrated, through monitoring of the effluent and a fish (and other organism) testing program conducted jointly with other dischargers to the Santa Ana River, that there is no reasonable potential for methylmercury to be present in the discharge at levels that would cause or contribute to the violation of water quality standards. Therefore, it is appropriate to delete the receiving water limitation for methylmercury.
4. It is appropriate to require the discharger to continue to monitor for the presence of mercury and methylmercury in the discharge and aquatic organisms that may be affected by the discharge, as currently specified in Order No. 01-45.
5. Order No. 01-45 includes a reopener provision that enables the Regional Board to reopen the Order to specify an appropriate effluent limitation for mercury once a scientifically defensible method of translating methylmercury concentrations in fish tissue to mercury concentrations in the effluent is derived. It is appropriate to revise this provision to provide more specificity regarding the methylmercury concentrations in fish tissue that could trigger reopening of the Order.

6. In accordance with Water Code Section 13389, the amendment of Order No. 01-45, is exempt from those provisions of the California Environmental Quality Act contained in Chapter 3 (commencing with Section 21100), Division 13 of the Public Resources Code.
7. The Regional Board has notified the discharger and other interested agencies and persons of its intent to amend the waste discharge requirements for the discharge and has provided them with an opportunity to submit their written views and recommendations.
8. The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that Order No. 01-45 be amended¹ as follows:

1. Order No. 01-45, delete Finding 38.
2. Order No. 01-45, delete Receiving Water Limitations C.4.
3. Order No. 01-45, revise Permit Re-opening H.4. as follows:
 4. This Order may be reopened to include an appropriate bioaccumulation based effluent limit for mercury, if test results (as required in M&RP No. 01-45) show that the concentration levels of methylmercury in the fish tissue are at or above 0.3 milligrams per kilogram.
4. All other conditions and requirements of Order No. 01-45 shall remain unchanged.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on November 21, 2003.

Gerard J. Thibeault
Executive Officer

¹ For the amendments showing the added and deleted text, see the staff report.